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Barriers to FinTech Implementation in the Banking Sector of Bangladesh

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Abstract

FinTech is widely associated with gains in efficiency, effectiveness, and financial inclusion. The purpose of this research is to review global and Bangladesh-specific challenges in implementing financial technology (FinTech) in the banking sector through a structured narrative review grounded in the technology-organization-environment (TOE) framework. The study reviewed a number of publications from home and abroad to detect the factors influencing the proper implementation of the financial technology. There are a number of impediments divided into three broad categories, viz., technological, organizational, and environmental, that make it difficult for banks to implement financial technology. The study identified that technological factors are cited as most critical by most of the studies. The factors include a deficit in ICT infrastructure, internet, and electricity, along with cybersecurity and data privacy risk, limited interoperability, etc. Another important barrier is the high initial investment that makes it difficult for small firms to enter into the operation. Skill gap among the professionals involved in the operation is a major factor hindering the effective implementation of FinTech solutions. Ambiguous laws and outdated, conflicting frameworks constitute the chief regulatory barriers to FinTech innovation. By synthesizing these multi-level impediments within the TOE (technology-organization-environment) lens, the paper provides an integrative understanding of fintech implementation barriers in banking and offers a foundation for future empirical research and policy discussion in the Bangladeshi context.

Keywords: FinTech, Cyber Security, Banking Sector, Technology–Organization–Environment (TOE) Framework, Bangladesh.

1. INTRODUCTION

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Bangladesh has emerged as a promising hub for financial technology (FinTech) in South Asia, driven by rapid digitization, expanding mobile phone penetration, and policy emphasis on financial inclusion (Islam & Rahman, 2022; Prove, 2025). Over the past few years, banks in Bangladesh have been widely using digital channels, including mobile banking, internet banking, agent banking, and application programming interface (API)-based services to enhance efficiency, customer convenience, and outreach to unbanked groups (Ahmed & Uddin, 2023; Rahman, 2021). This change is in line with structural shifts towards service-based business models that are currently affecting many banks across the world. It is facilitated by FinTech, which has started to re-arrange traditional ways of doing business as well as offering new fields for value creation under competitive pressure (Gomber et al., 2018; Puschmann, 2017). Notwithstanding this progress, the potential of FinTech to change the Bangladeshi banking landscape is yet to be fully exploited, given that there are a number of structural, organizational, and regulatory challenges to executing FinTech projects (Chowdhury & Ayoungman, 2021; Hossain, 2020).

FinTech is an acronym for financial technology, which is a technology-driven financial innovation that results in new disruptive change in the financial sector. It brings changes to the entire business models, applications, processes, or products, and is widely recognized as a catalyst for enhancing efficiency, inclusion, and customer experience in banking (Financial Stability Board, 2017; Schueffel, 2016). Theoretically, the adoption of FinTech in banks can be examined as a process within the Technology–Organization–Environment (TOE) model and other innovation adoption models (Tornatzky & Fleischer, 1990; Baker, 2012). The TOE approach posits that technological features (e.g., compatibility, complexity, security), organizational elements (e.g., top management support, resources, culture, and skills), and environmental circumstances (e.g., regulation or legislation, competition, infrastructure) all determine new technologies' adoption and the realization of their potential impact. In the context of Bangladeshi banking, this suggests that FinTech success is not only a function of customer readiness to adopt, but also how banks deal with legacy systems, data governance, cyber security, regulatory compliance, and change management (Ahmed & Uddin, 2023). Barriers to implementation in any of these will slow, if not pervert or even doom, a FinTech itself. Globally, FinTech is seen as a Disruptive technology that has changed the way of doing business by bringing drastic change in the entire ecosystem of financial services. FinTech has changed the way of designing and delivering financial services to the target customer. By the introduction of this technology, the target market for financial services has also been changed. The section of the population previously excluded from financial services is now an integral part of financial services. It is seen in all the developing countries that a good portion of marginalized people our financially excluded, but rapid advancement in technology and its

integration with financial services has enabled companies to offer financial services to remote and poor people of the economy.

In emerging economies like Bangladesh, FinTech plays a very important role in bridging the gap between Banked and unbanked people and also in reducing transaction costs (Ozili, 2018; Sahay et al., 2020). The rise of mobile financial services, agent banking, and digital payment systems in Bangladesh is are indication of the rise of FinTech (Bangladesh Bank, 2023; Hasan & Prodhan, 2022). However, the implementation of FinTech within banks is far from its peak (Islam & Rahman, 2022; Ahmed & Uddin, 2023). The existing researches on FinTech are mainly focused on user adoption of FinTech using variables like customer readiness, ease of use, intention to use, etc. These articles mainly employed theories like UTAT or the technology acceptance model TAM (Ayoungman & Chowdhury, 2022). Other researchers have explored the broader FinTech ecosystem, outlining opportunities and challenges related to market growth, competition, and regulatory developments (Hossain, 2020; Islam & Rahman, 2022). There is huge potential for FinTech in the financial inclusion of marginalized people. The garment workers working in the city, away from their families, are more than happy to send money to their loved ones by using mobile financial services. For a growing economy like Bangladesh, it can contribute a lot. But still, the FinTech penetration of Bangladesh is not very expected level. Thus. this study aims to review global and Bangladesh-specific challenges in implementing financial technology (FinTech) in the banking sector through the technology-organization-environment (TOE) framework.

2. CONCEPTUAL AND THEORETICAL FOUNDATIONS

2.1 *FinTech and Its Implementation in Banking*

FinTech has been defined broadly to encompass technology-enabled financial innovation whose impact may transform the scope and delivery of traditional financial products, services through changes to their design, processing of service requests, and models through which these are delivered in the market. In banking, FinTech covers a range of technologies like mobile and online banking, digital payments, API-driven open banking platforms, regtech tools (regulatory technology), data analytics, and fully digital or so-called “neo” banks that are together redefining how banks operate and reach out to clients and partners. While much of the empirical work, including in Bangladesh, has focused on customers’ adoption of FinTech services and digital payments, this study distinguishes between adoption (the decision to use a technology) and implementation (the process of integrating that technology into organizational structures, processes, and routines), emphasizing the latter as a complex organizational and ecosystem challenge rather than merely a matter of user attitudes. In

Bangladesh, existing research shows rapid growth in mobile financial services, digital payments, and emerging digital banking initiatives, yet also documents persistent constraints related to infrastructure, cybersecurity, skills, and regulation. These constraints highlight that successful FinTech implementation in banks is not only a question of deploying technology but also of aligning systems, capabilities, and external conditions.

2.2 *Technology–Organization–Environment framework*

The TOE (Technology–Organization–Environment) framework serves as the main theoretical underpinning for this study. First developed by Tornatzky and Fleischer (1990), TOE views the organizational adoption and implementation of a technological innovation as influenced by three dimensions: technological (the internal and external technologies that are pertinent to the firm), organizational (resources, processes, structure), and environmental (industry structure, competition, regulation). In the field of information systems, TOE has been commonly used to analyze the adoption of different digital technologies – such as e-business, e-government, and FinTech-related tools in developed and emerging country scenarios. Applied to FinTech in banking, the technological dimension covers issues such as compatibility with legacy core banking systems, interoperability, cybersecurity and data privacy, reliability of digital channels, and perceived technological complexity. The organizational dimension, which encompasses top management support, digital skills, and human capital, readiness of the organization, as well as its culture and governance, resource availability, affects how FinTech initiatives are prioritized, resourced, and embedded into the daily business. Environmental comprises the regulatory and supervisory regime, competitive pressures from non-bank FinTech's and BigTech's companies, the state of national ICT infrastructure, maturity of the FinTech ecosystem. Consistent with this evidence, previous research in emerging economies found that while banks may be aware of the strategic value of FinTech, internal lack of readiness coupled with volatile regulation or infrastructural conditions can meaningfully delay or misshape implementation. Utilizing TOE as a guiding framework, this study in Bangladesh categorizes the obstacles into groups of technological, organizational, and environmental factors and explores their interactions with one another in the banking sector.

2.3 *Innovation Diffusion and Technology Acceptance Perspectives*

To complement TOE, this study also draws on diffusion of innovation and technology acceptance perspectives. Diffusion of innovation theory (Rogers, 2003) emphasizes characteristics such as relative advantage, compatibility, complexity, trialability, and observability that influence the rate and pattern of innovation adoption across organizations and social systems. In the FinTech–banking literature, these attributes have been used to explain both customer adoption of digital services and institutional decisions to introduce new

FinTech-based offerings. At the organizational level, perceived relative advantage (e.g., efficiency gains, improved customer outreach), compatibility with existing processes, and perceived implementation complexity shape managerial judgments about which FinTech projects to pursue and how aggressively to scale them. Technology acceptance models such as the Technology Acceptance Model (TAM) and the Unified Theory of Acceptance and Use of Technology (UTAUT) were originally formulated to explain individual-level technology use but provide constructs—perceived usefulness, ease of use, facilitating conditions, and trust—that are conceptually useful for understanding organizational concerns about system quality, support structures, and risk. In Bangladesh, UTAUT-based studies on FinTech adoption show that constructs such as perceived usefulness, effort expectancy, facilitating conditions, and trust significantly affect users' behavioral intention to adopt FinTech and digital financial services. This article leverages these insights by treating recurring user-side constraints (e.g., trust deficits, perceived risk, weak facilitating conditions) as reflections of deeper organizational and environmental implementation issues—such as reliability of systems, quality of customer support, and robustness of consumer protection frameworks.

2.4 Digital Transformation and Capabilities-Based Views

FinTech implementation in banks is closely linked to broader digital transformation and capability-based perspectives. Digital transformation research conceptualizes the adoption of digital technologies as part of a strategic, organization-wide change process that requires dynamic capabilities, cross-functional integration, and new governance arrangements rather than isolated IT projects. From this perspective, barriers such as siloed organizational structures, lack of digital leadership, weak change management, and misalignment between IT and business strategy are manifestations of limited digital transformation capabilities rather than purely operational problems. Capability-based views argue that firms must develop, recombine, and reconfigure technological, human, and organizational capabilities to sense, seize, and transform FinTech opportunities in competitive and rapidly evolving environments. These views are especially relevant in the context of emerging markets, where many banks run on legacy systems and continue to operate through branch-heavy models and have increasing requirements to partner with FinTechs, react to changing regulations, and provide customer capabilities that are expected. In Bangladesh, evidence indicates nonuniform digital readiness among banks, a dearth of skills, and conservative organizational culture as the important influence factors for implementation barriers—hinting that capability and transformation issues are fundamental enablers in understanding the implementation challenges. Thus, combining TOE with digital transformation and capability-based views allows to go beyond static barriers or mere lists of obstacles towards a more dynamic insight regarding how banks' abilities to develop and deploy appropriate capabilities influence the nature as well as the impact of implementation obstacles.

2.5 Ecosystem and institutional perspectives

The adoption of FinTech in banking is increasingly explained from an ecosystem and institutional perspective. Ecosystem views of the world emphasize that banks run in embedded networks of regulators, FinTech startups, tech vendors, payment systems operators, and so on, where shared standards, platforms, and cooperative arrangements define what is technologically feasible or economically viable. Thus, the environmental barriers like uncertain regulations, non-interoperable standards, fragmented infrastructures, and low levels of collaboration, are not just prerequisites but have influences on implementation outcomes. Institutional theory goes beyond simply addressing pressures for change as it also considers how regulatory structures, sectoral norms, and cognitive frames influence the way that innovations are attended to, legitimized, and routinized. This framework may generate both institutional resistance and isomorphic pressure, which could act as brakes on experimentation within the banking industry.

This is particularly relevant for Bangladesh, where the Central Bank and the government have emphasized digital financial services under their visions of "Digital Bangladesh" and "Smart Bangladesh" as well as stressed financial stability and consumer protection, all important aspects that arise due to ecosystem and institutional dynamics. Regulatory interventions such as FinTech Facilitation Offices, Digital Financial Guidelines, and Emerging Digital Bank Licensing Frameworks could turn into either inhibiting or reducing the barriers based on clarity, coherence, and enforcement. By embedding Bangladeshi banks within these larger ecosystem and institutional contexts, this research recognizes that impediments to FinTech adoption are co-productions of organisational capabilities, technological features, as well as changing regulatory and market dynamics. Building on these theoretical strands, this study adopts an integrative conceptual frame in which barriers to FinTech implementation in Bangladeshi banks are understood as TOE-structured constraints operating within a wider digital transformation and ecosystem context. Technological, organizational, and environmental barriers are treated as interdependent rather than isolated. This study draws on the FinTech and banking literature in three ways: (a) global and emerging market evidence drawing attention to FinTech's transformative potential as well as constraints; (b) Bangladesh-specific research that examines how banks adopt or resist adopting FinTech, consider ecosystem opportunities, and face challenges; and (c) theory-informed investigations into barriers of implementation at financial institutions. Combined, these streams shed light on the fact that, even if, as a source of efficiency and inclusion, FinTech has gained much attention already, its meaningful integration inside banking institutions is confronted with complex multilevel barriers that are insufficiently studied in the context of Bangladesh.

3. METHODOLOGY

3.1 Review Design

This study is a structured narrative review based on the Technology–Organization–Environment (TOE) framework and relevant innovation and technology adoption theories. The TOE model introduces an organizing focus for categorization of barriers (technological, organizational, and environmental/resistance/regulatory/infrastructure) that allows systematic comparison between different studies in similar or different settings. The key aims of the review are: (a) to develop a taxonomy of barriers for FinTech implementation in banking; (b) to map the evidence state in context-dependent studies such as Bangladesh, compared with other emerging economies; and (c) to build an integrative theoretical position and research agenda.

3.2 Search Strategy

A comprehensive search strategy was employed to identify relevant literature on FinTech implementation and its barriers in banking. Major academic databases such as Scopus, Web of Science, and Science Direct were consulted, supplemented by Google Scholar and reputable institutional repositories for grey literature (e.g., central bank, BIS, IMF, World Bank reports). The search covered publications from 2010 to 2025, capturing the contemporary literature on FinTech. Search strings combined FinTech-related terms with banking and barrier terminology. Examples include: “FinTech” AND “banking” AND “barriers”; “digital banking” AND “implementation challenges”; “FinTech adoption” AND “banks” AND “emerging economies”; and “FinTech” AND “Bangladesh” AND “bank.” Search fields were limited to titles, abstracts, and keywords to ensure relevance. Reference lists of key articles and existing FinTech review papers were also manually screened (backward and forward snowballing) to identify additional studies not captured by database searches.

3.3 Inclusion and Exclusion Criteria

Clear inclusion and exclusion criteria were applied to ensure conceptual alignment with the review’s focus. Studies were included if they: (a) examined FinTech, digital banking, or related financial technologies in the context of banks or regulated financial institutions; (b) discussed challenges, constraints, or barriers to adoption or implementation, even if not the primary focus; and (c) were empirical (quantitative, qualitative, or mixed-method) or conceptual/theoretical contributions published in peer-reviewed journals, scholarly books, conference proceedings, or high-quality institutional reports. Particular attention was given to studies conducted in Bangladesh or in emerging/developing economies whose institutional conditions are comparable.

3.4 Synthesis and Analysis

The review employed thematic synthesis to integrate findings across studies. Following the TOE-based coding, barriers were grouped into higher-order themes within each dimension, such as system interoperability and security under technological barriers, organizational readiness and change management under organizational barriers, and regulatory clarity and infrastructure quality under environmental barriers. These themes were then compared across different geographic and institutional contexts to identify convergent and divergent patterns between Bangladesh and other emerging markets.

3.5 Quality Appraisal

Although the primary aim of the review is thematic synthesis rather than formal meta-analysis, basic quality appraisal was incorporated. Studies were assessed on criteria such as clarity of research questions, appropriateness of methodology, transparency in data collection and analysis, and explicitness in reporting barriers and contextual details. Findings from studies with substantial methodological limitations were treated cautiously, informing contextual understanding rather than central conclusions.

4. RESULTS AND FINDINGS

4.1 Technological Barriers

In the technological factors category, the first and most important barrier to FinTech implementation is security, privacy, and data risk. With the rise of FinTech, scammers applying different tricks to fool the illiterate and old age people to get control over their financial data have increased manifold (Imam et al. 2022; Shala & Perri 2022). These scammers have different stories and techniques to get the PIN of the mobile financial services account. These data breaches and loss of control of accounts have made people reluctant to open accounts in MFS (Ashraf et al., 2021). In a developing country like Bangladesh, the incident is most common as there is widespread unemployment in the economy. There are a number of technological changes that limit the adoption of the FinTech-enabled services. One of them is interoperability. There are a number of service providers. If there are no arrangements for service transfer among them, the service receiver needs to open an account in all of them to get the most benefit. But it is costly and difficult to maintain (Bouteraa et al., 2023). In most of the developing countries, the IT infrastructure is very poor, which is also a very important impediment. These causes service downtime, errors, and transaction failure (Ashraf et al., 2021).

4.2 Organizational Barriers

Organizational factors, including scarcity of resources, internal resistance from the employees and other stakeholders, constitute major barriers in the implementation of FinTech in the banking sector of Bangladesh. Here in Bangladesh, there is are huge surge in population, but there is not in the skilled manpower, which makes it difficult for an entity to implement technology in its operation (Ashraf et al. 2021). This shortage of skilled manpower, coupled with a lack of innovative culture, makes things even worse. Another related problem is the tendency of the workforce to resist the change (Degerli 2019). It is very obvious that those who don't have updated knowledge and skills will be reluctant to accept the changes. In Bangladesh, there are nineteen organizations providing mobile financial services, but people know very few of them. Others struggle to have a thin of the market but fail to do so. Here, reputation plays a very important role in gaining customers' confidence (Bouteraa et al. 2023).

4.3 Environmental and Legal Barriers

Legal and environmental uncertainties, unclear laws and regulations, and unawareness about legal aspects of technology make it difficult for a bank to implement FinTech in its operation (Shala & Perri, 2022). Even if there are rules and regulations that are properly framed but there is less awareness about those rules among the users, as these rules are not properly communicated to the ultimate users. This also makes it difficult for them to implement fintech in their operation (Imam et al., 2022; Ashraf et al., 2021).

The summary of the findings is shown in the following Table 1.

Table 1: Categorized Barriers to FinTech Adoption (Based on TOE Framework)

Category	Barrier	Citation
Technological Factors	Security, privacy, and data risk – concerns over fraud, identity theft, and data breaches.	Imam et al. (2022); Shala and Perri (2022); Ashraf et al. (2021); Bouteraa et al. (2023)
	Technological limitations – poor system quality, limited interoperability, low IT capacity, and cybersecurity gaps.	Bouteraa et al. (2023); Degerli (2019)
	Operational and system reliability issues – service downtime, errors, and transaction failures.	Ashraf et al. (2021); Degerli (2019)
	Financial risk – perception of potential financial	Ashraf et al. (2021)

	losses and transaction irreversibility.	
Organizational Factors	Lack of skilled workforce and innovation culture – limited expertise and internal resistance to FinTech adoption.	Ashraf et al. (2021); Degerli (2019)
	Low firm reputation and credibility – skepticism toward new or unknown FinTech providers.	Bouteraa et al. (2023)
	Legacy infrastructure and low technological readiness – outdated systems hindering integration.	Degerli (2019)
	High compliance and licensing costs – financial and administrative burdens from regulations (AML, CTF, data protection).	Shala and Perri (2022); Degerli (2019)
Environmental Factors	Regulatory and legal uncertainty – absence of clear FinTech laws, conflicting and outdated frameworks.	Shala and Perri (2022); Imam et al. (2022); Ashraf et al. (2021); Degerli (2019)
	Cross-border regulatory complexity – differing international standards limiting scalability.	Shala and Perri (2022)
	Weak governmental and institutional support – inadequate digital infrastructure, incentives, and policy direction.	Bouteraa et al. (2023); Shala and Perri (2022); Degerli (2019)
	Market concentration and limited data access – dominance of incumbent banks restricting innovation and transparency.	Shala and Perri (2022)
	Limited research and data availability – insufficient local research and FinTech datasets.	Shala and Perri (2022); Bouteraa et al. (2023)
Individual/User-Level Factors	Low awareness and personal innovativeness – users' lack of knowledge and unwillingness to try new technologies.	Bouteraa et al. (2023); Imam et al. (2022)
	Limited financial literacy and affordability constraints – difficulty understanding and accessing FinTech tools.	Imam et al. (2022)
	Preference for cash-based transactions – traditional habits reducing digital adoption.	Imam et al. (2022); Degerli (2019)
	Lack of consumer trust – general skepticism	Imam et al. (2022); Shala and

about FinTech service reliability.	Perri (2022)
Cultural and religious barriers – societal and faith-based resistance to digital finance.	Imam et al. (2022)

5. CONCLUSION

This study has provided a structured narrative review of the multi-level barriers to FinTech implementation within the Bangladeshi banking sector. By utilizing the Technology-Organization-Environment (TOE) framework, the research identifies that while FinTech offers immense potential for efficiency and financial inclusion, its progress is stalled by critical infrastructure deficits, significant skill gaps, and regulatory uncertainty. The analysis reveals that technological factors, such as cybersecurity risks and limited interoperability, remain the most critical hurdles. These are deeply intertwined with organizational readiness and environmental constraints. The findings of this study underscore that advancing FinTech adoption in Bangladesh demands an integrated, ecosystem-oriented response rather than fragmented policy or firm-level actions. Progress toward the national ambitions of "Digital Bangladesh" and "Smart Bangladesh" hinges on regulatory certainty, sustained investment in digital and energy infrastructure, enforced interoperability standards, and comprehensive data protection and cybersecurity frameworks to foster trust and system resilience. At the organizational level, banks must prioritize digital skill development, replace outdated core systems, and treat FinTech as a strategic transformation affecting governance and institutional culture, not merely a technological upgrade. Nevertheless, the study's reliance on a structured narrative review and secondary sources constrains empirical verification and causal interpretation, while its concentration on the banking sector and a single-country context limits broader applicability. Future research should therefore move toward empirical, longitudinal, and comparative designs that measure the influence of specific technological, organizational, and environmental barriers, incorporate insights from FinTech firms, non-bank institutions, and end-users, and examine how ongoing regulatory and infrastructural reforms reshape FinTech ecosystems over time.

References

Ahmed, M., & Uddin, S. (2023). Digital transformation and fintech in modern banking: Evidence from emerging markets. *Journal of Banking and Financial Innovation, 15*(2), 45–62.

Ashraf, S. A., Javed, A. F., & Bala, P. K. (2021). *Barriers of fintech adoption in MSMEs: Moderating role of innovation culture*.

Ayoungman, M., & Chowdhury, T. (2022). User attitude and intentions towards fintech in Bangladesh. *International Journal of Financial Services Innovation, 4*(1), 1–20.

Baker, J. (2011). The technology–organization–environment framework. *Information Systems Theory: Explaining and Predicting Our Digital Society, 1*, 231-245.

Bangladesh Bank. (2023). *Financial inclusion report 2023.* Bangladesh Bank.

Bouteraa, M., Chekima, B., Lajuni, N., & Anwar, A. (2023). Understanding consumers' barriers to using FinTech services in the United Arab Emirates: mixed-methods research approach. *Sustainability, 15*(4), 2931.

Chowdhury, T., & Ayoungman, M. (2021). Factors affecting the adoption of fintech: Evidence from financial institutions in Bangladesh. *Contemporary Journal of Finance and Accounting, 9*(3), 55–72.

Degerli, K. (2019). Regulatory challenges and solutions for Fintech in Turkey. *Procedia Computer Science*, *158*, 929-937.

Financial Stability Board. (2017). *Financial stability implications from fintech: Supervisory and regulatory issues that merit authorities' attention.* Financial Stability Board.

Gomber, P., Kauffman, R. J., Parker, C., & Weber, B. W. (2018). On the fintech revolution: Interpreting the forces of innovation, disruption, and transformation in financial services. *Journal of Management Information Systems, 35*(1), 220–265.

Hasan, M., & Prodhan, M. H. (2022). Digital financial services and financial inclusion in Bangladesh: Recent trends and challenges. *South Asian Journal of Development, 8*(1), 23–41.

Hossain, M. (2020). Fintech in Bangladesh: Ecosystem, opportunities, and challenges. *International Journal of Business and Technopreneurship, 10*(3), 73–90.

Imam, T., McInnes, A., Colombage, S., & Grose, R. (2022). Opportunities and Barriers for FinTech in SAARC and ASEAN Countries. *Journal of Risk and Financial Management*, *15*(2), 77.

Islam, S., & Rahman, T. (2022). An overview of fintech in Bangladesh: Problems and prospects. In M. K. Hassan & S. Ali (Eds.), Fintech in emerging economies (pp. 112–135). IGI Global.

Ozili, P. K. (2018). Impact of digital finance on financial inclusion and stability. *Borsa Istanbul Review, 18*(4), 329–340.

Prove (2025*). Bangladesh – The rising fintech star in South Asia*. Prove Identity Inc.

Puschmann, T. (2017). Fintech. *Business & Information Systems Engineering, 59*(1), 69–76.

Rahman, A. (2021). The future of digital financial services in Bangladesh. *Bangladesh Economic Review, 42*(1), 89–108.

Rogers, E. M. (2003). *Diffusion of innovations (5th ed.).* Free Press.

Sahay, R., von Allmen, U., Lahreche, A., Khera, P., Ogawa, S., Bazarbash, M., & Beaton, K. (2020). *The promise of fintech: Financial inclusion in the post-COVID-19 era (IMF Departmental Paper No. 20/09).* International Monetary Fund.

Schueffel, P. (2016). Taming the beast: A scientific definition of fintech. *Journal of Innovation Management, 4*(4), 32–54.

Shala, A., & PERRI, R. (2022). Regulatory barriers for fintech companies in Central and Eastern Europe. *Eastern Journal of European Studies*, *13*(2).

Tornatzky, L. G., & Fleischer, M. (1990). *The processes of technological innovation*. *Lexington Books.*